
Protective Face Mask

The boy pictured is a cerebral palsy victim who is undergoing training at the Southeastern Training Center, Portsmouth, Virginia. His physical impairment causes frequent falls while walking, which in the past often resulted in head and facial injuries. In response to a request for a device to prevent such injuries, Langley Research Center fabricated the protective mask shown.

The mask is made of composite materials being developed at Langley for aerospace applications. Composites—usually graphite or boron fibers woven into a matrix—are generally lighter but stronger than the metals they are intended to replace, hence the mask provides the requisite protection although it weighs less than three ounces. The boy has worn the mask for more than a year without incidence of injury. Southeastern Training Center has expressed gratitude for the durability and trainee acceptance of the device.

